

Work Order ID 119560

Friday, May 16, 2014 1:13:53 PM

119560

Page 1

Item ID: D3407-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Ring

Stop

NS2

Start Date: 5/15/14 Start Qty: 20.00

20

Cust Item ID:

Required Date: 5/15/14 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: ML5Date: 1405-22 Tooling:

Date:

Run Start

NR1

QC: _____

Date: _____ SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3407	Rev E								

100

100

Waterjet

FLOW CNC Waterjet

17.4 14x4"

FLOW WATER JET

Memo

0.00

DAS

23

9-89

20 0 14-06-7

1-Cut as per Dwg D3407

Dwg Rev: CProg Rev: C

2-Break edges on manual lathe Dwg D3407 (175rpm)

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

20 0 DAS 14-06-7

23

9-89

Deburr. - PLM 14-06-26

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS									
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering								
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality								
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other								
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>									
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector				
Design															
Doc/Data															
Equip/Tooling															
Handling/Pre															
Material															
Operator															
Offset/Setup															
Process															
Supplier															
Training															
Transport															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

Work Order ID 119560

Friday, May 16, 2014 1:13:53 PM

119560

Page 2

Item ID: D3407-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Ring

Stop

NS2

Start Date: 5/15/14

Start Qty: 20.00

20

Cust Item ID:

Required Date: 5/15/14

Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC8- Inspect parts - second check

0.00

DAS

27

89

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120

QC

Quality Control

130

Identify as per dwg & Stock Location: W/A001

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Packaging

Packaging

Memo

*****STOCK IN LARGE FAB*****

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140

QC21- Final Inspection - Work Order Release

0.00

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140

QC

Quality Control

Memo

0.00

14/7/3

CWF
(M-1-02)

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework	Scrap	Use-as-is	Skid-tube	Crosstube	Water Jet	Engineering		
NCR No. _____	Suspected	Unapproved		Machining	Small Fab	Prod. Eng. Coor.	Quality		
				Thermoforming	Finishing	Rec/Store/Packaging	Other		
				Large Fab	Composite	Supplier			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General								
	Bending	Bend	Folio/Program				Outside Dimensions	Pressure/Forced	
	Centre Not Concentric	BOM/Route	Grain				Over/Under tolerance	Set-up	
	Cracks	Broken/Damage/Defect	Hardware				Part Incorrect	Temperature/Cure	
	Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified				Part Lost/Missing	Weld	
	Cuffs	Contamination	Instructions Incomplete/Unclear				Part Moved	Wrong Stock Pulled	
	Crushing	Countersink	Misaligned/off center				Positioned Wrong		
	Heat Treat	Cut Too Short	Mislabeled				Power Loss/Surge	Other	
	Inspection Strip in Tube	Drawing	Misread						
	Marks/Chatter	Drill Holes	Off-set						
	Turning Sequence	Finish	Out of Calibration						
	Wave/Twist in Tube	Fit/Function	Out of Sequence						

Picklist Print

Friday, May 16, 2014 1:13:57 PM

Page 1

Work Order ID: 119560

119560

Parent Item: D3407-5

D3407-5

Parent Item Name: Ring

Start Date: 5/15/14

Required Date: 5/15/14

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP Rev:A New Issue 05-11-22 JLM

IPP Rev:B Now on Waterjet 08-05-14 JLM Verified By:DD

IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174B0.250X4.000 17-4 SS Bar .250 X 4.00		Purchased	No			100	f	23.9700	0.2666	5.612632	6		DAS 23 9-89 14-06-7
M174B0 250X4 000									**				

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT049	23.97	
m127866	23.97	

127583

127583

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____
 Part No. _____
 NCR No. _____

DISPOSITION

Rework
 Scrap
 Use-as-is
 Suspected Unapproved

AGAINST DEPARTMENT/PROCESS

Skid-tube
 Machining
 Thermoforming
 Large Fab

Crosstube
 Small Fab
 Finishing
 Composite

Water Jet
 Prod. Eng. Coor.
 Rec/Store/Packaging
 Supplier

Engineering
 Quality
 Other

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General					
	Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced	
	Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up	
	Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure	
	Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld	
	Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled	
	Crushing	Countersink	Misaligned/off center	Positioned Wrong		
	Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge	Other	
	Inspection Strip in Tube	Drawing	Misread			
	Marks/Chatter	Drill Holes	Off-set			
	Turning Sequence	Finish	Out of Calibration			
	Wave/Twist in Tube	Fit/Function	Out of Sequence			

DART AEROSPACE LTD	Work Order:	119560
Description: Tow Ring	Part Number:	D3407-5
Inspection Dwg: D3407 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

DAS

Measured by:	DAS 23	Audited by:	27 8-89	Prototype Approval:	N/A
Date:	9-89 14-08-87	Date:	M/16/87	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.02.02	New Issue	KJ/JLM	
B	07.09.18	Tolerance revised	KJ/EC	
C	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM	
D	09.05.04	Dwg Rev updated	KJ/DD	

8 7 6 5 4 3 2 1

QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X	X		D3407-041	TOW RING
	X		D3407-043	TOW RING
	X		D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
	1		D3407-7	STEM

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 119560 MLJ14-05-22

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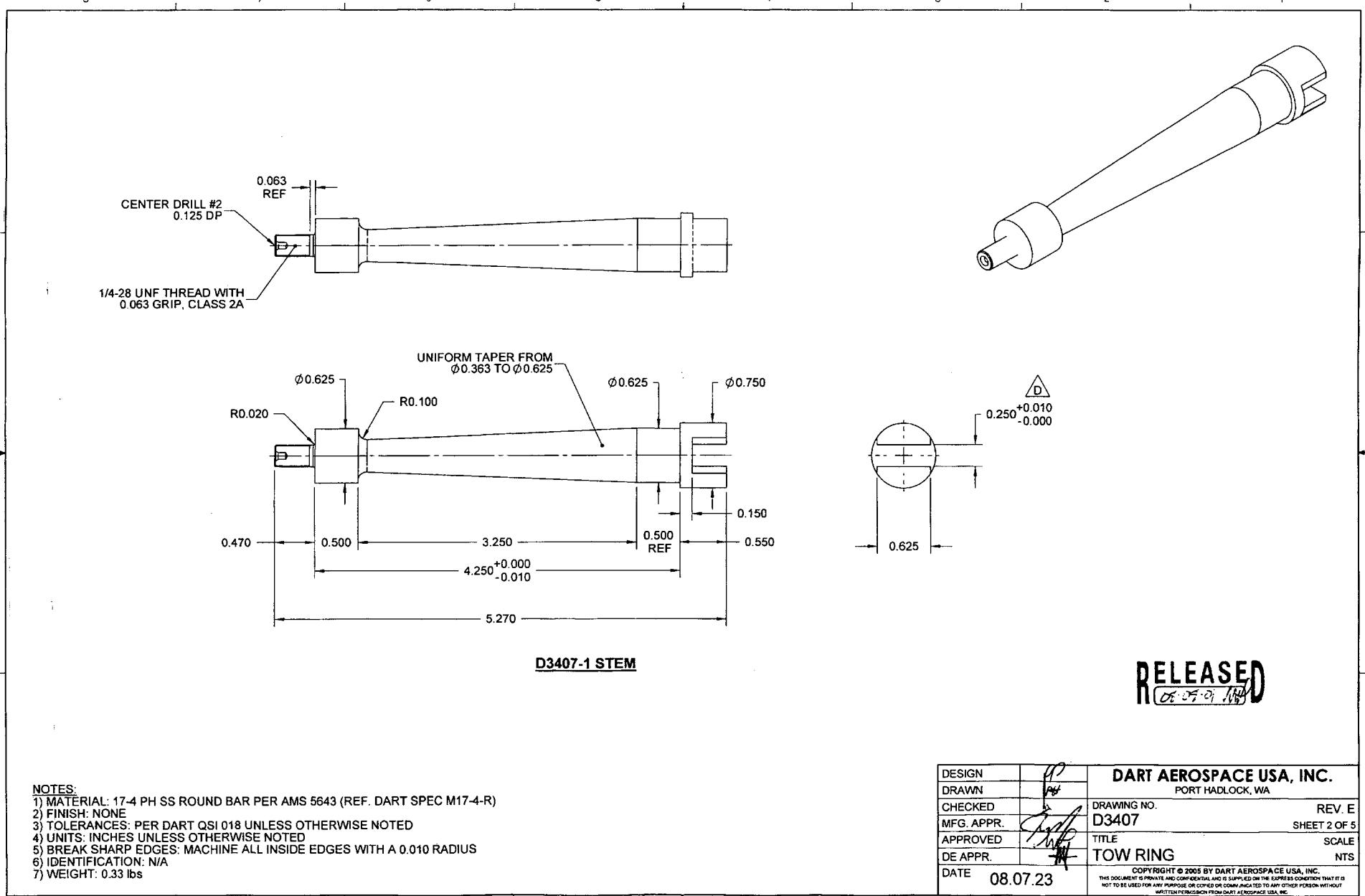
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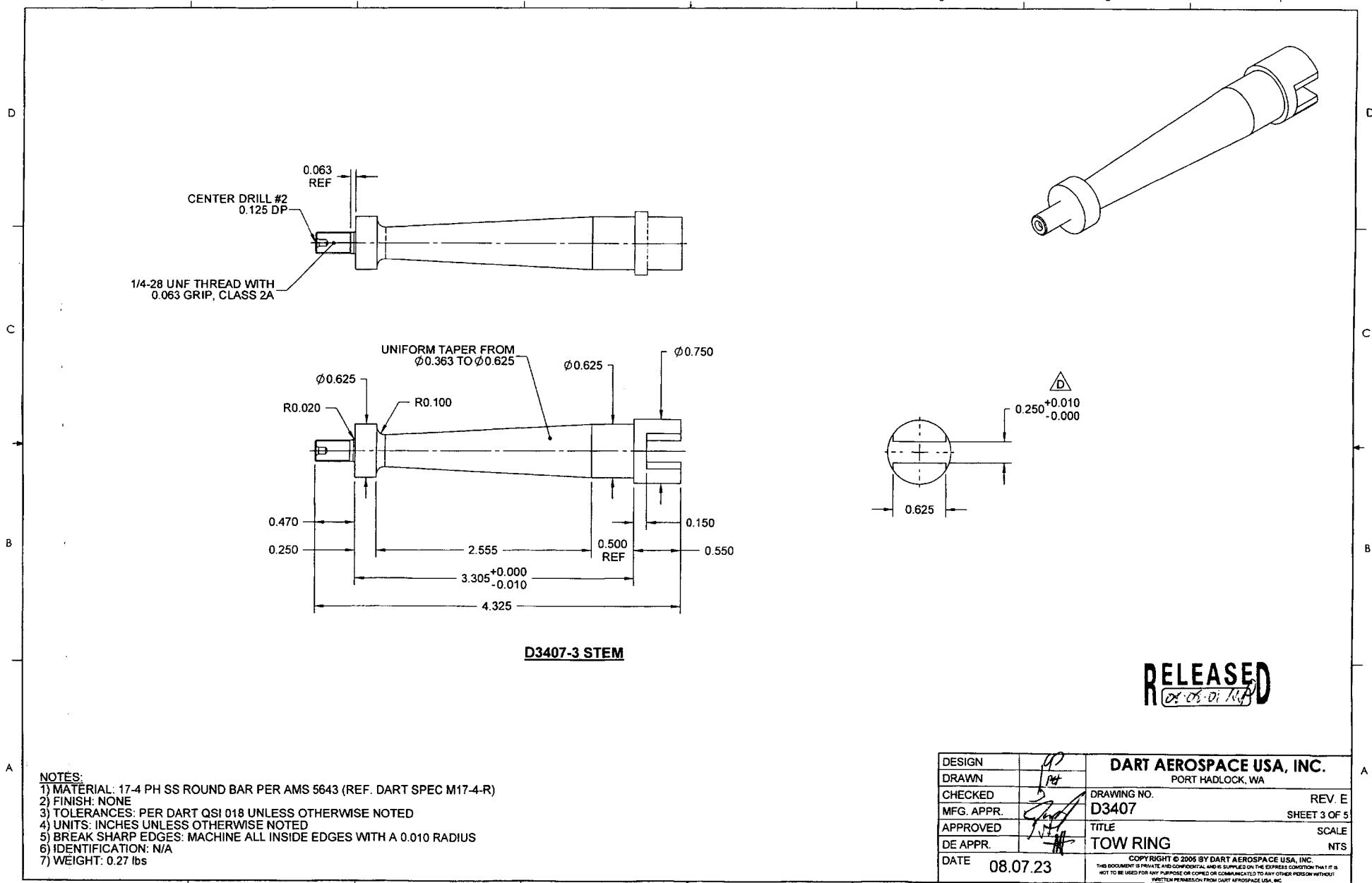
14-05-22



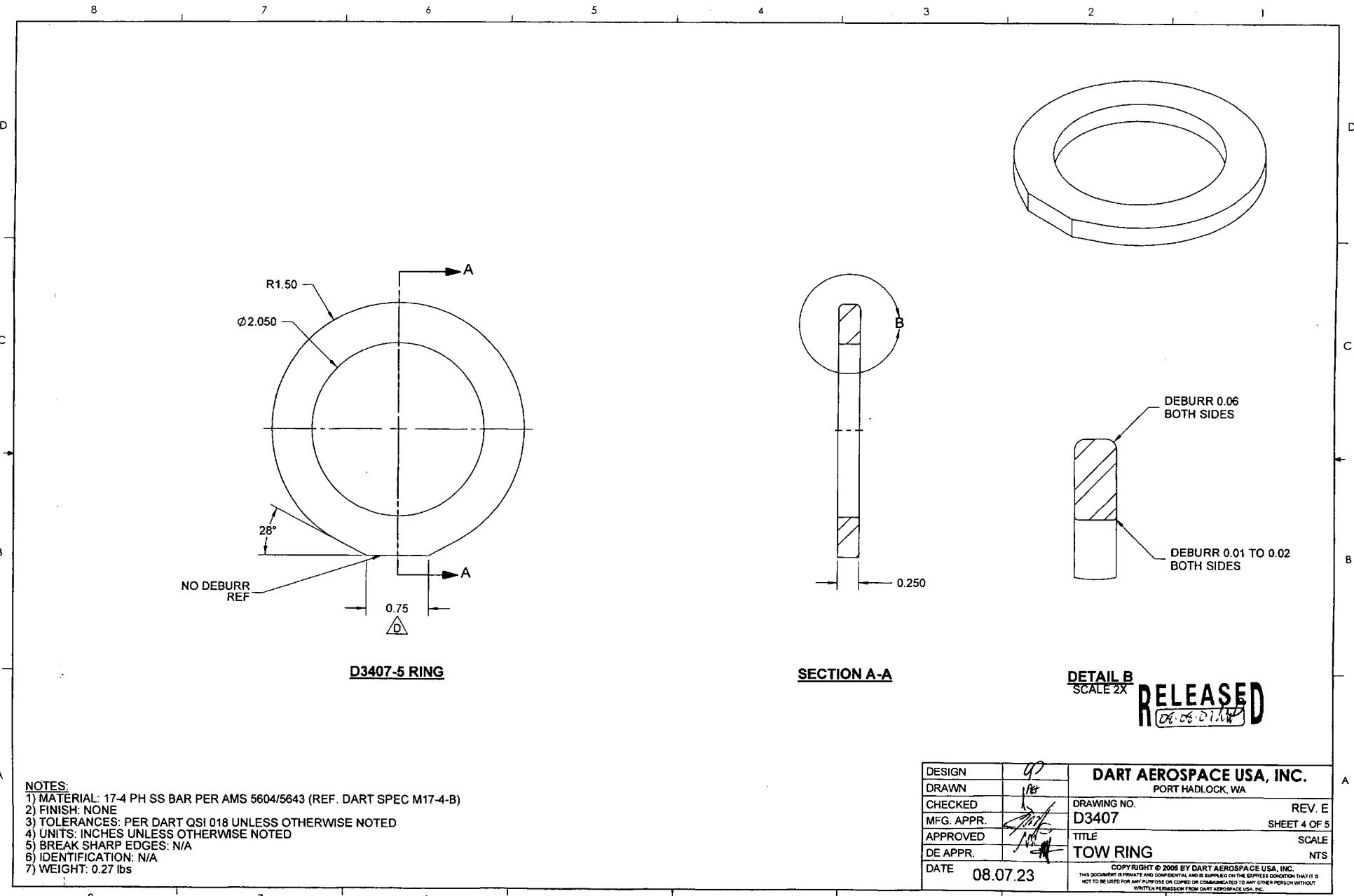
DESIGN	92	DART AEROSPACE USA, INC.
DRAWN	AS	PORT HADLOCK, WA
CHECKED	AS	DRAWING NO. D3407
MFG. APPR.	AS	REV. E
APPROVED	AS	SHEET 2 OF 5
DE APPR.	AS	TITLE TOW RING
DATE	08.07.23	SCALE NTS

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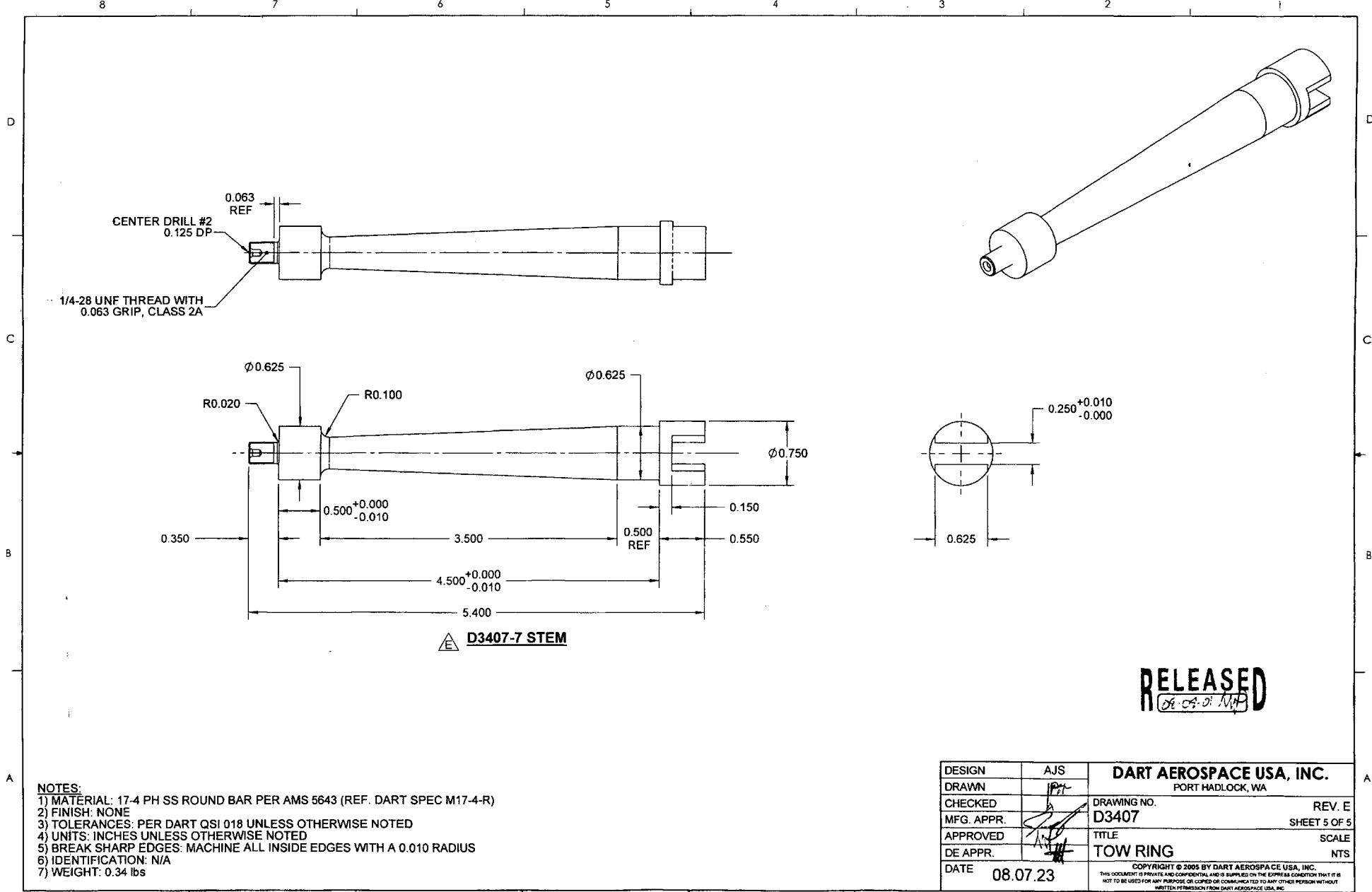
8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1



DESIGN	97	DART AEROSPACE USA, INC.
DRAWN	<i>[Signature]</i>	PORT HADLOCK, WA
CHECKED	<i>[Signature]</i>	REV. E
MFG. APPR.	<i>[Signature]</i>	DRAWING NO. D3407 SHEET 4 OF 5
APPROVED	<i>[Signature]</i>	TITLE TOW RING
DE APPR.	<i>[Signature]</i>	SCALE NTS
DATE	08.07.23	RIGHT © 2006 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.



NOTES:
1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
6) IDENTIFICATION: N/A
7) WEIGHT: 0.34 lbs

DESIGN	AJS	DART AEROSPACE USA, INC.		
DRAWN	<i>IPM</i>	PORT HADLOCK, WA		
CHECKED	<i>A</i>	DRAWING NO.	REV. E	
MFG. APPR.	<i>Signature</i>	D3407	SHEET 5 OF 5	
APPROVED	<i>AJ</i>	TITLE	SCALE	
DE APPR.	<i>Signature</i>	TOW RING	NTS	
DATE	08.07.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PROPRIETARY INFORMATION AND IS TO BE KEPT IN A CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		